

AMENDMENTS TO THE CLAIMS

The following listing of claims replaces all prior versions of claims in the application.

1. (Previously Presented) A substrate for culturing adherent cells, comprising:

a substrate coated with styrene/maleic anhydride copolymer (MAST) to which a cell adhesion protein or peptide has been bound, the MAST being a hydrophobic binding-absorptive polymer having a hydrophobic linear skeleton and a functional group that can react to a protein or a peptide in a molecule.

2-16. (Cancelled)

17. (Withdrawn) The solidified preparation according to claim 1, wherein the binding is covalent bonding formed by a reaction between a functional group, which is capable of reacting to a protein or a peptide, of a hydrophobic binding-adsorptive polymer and a reactive group of a cell adhesion protein or peptide.

18. (Withdrawn) The solidified preparation according to claim 17, wherein the covalent bonding is amide bonding.

19. (Withdrawn/Currently Amended) The solidified preparation according to claim 17 or 18, wherein the cell adhesion protein is fibronectin (~~FN~~), collagen (~~Col~~), laminin (~~LN~~) or vitronectin (~~VN~~).

20. (Withdrawn) The solidified preparation according to claim 17 or 18, wherein the cell adhesion peptide is a peptide in a region relating to cell adhesion in an amino acid sequence of the cell adhesion protein according to claim 19.

21. (Withdrawn/Currently Amended) The solidified preparation according to claim 20, wherein the peptide in a region relating to cell adhesion of fibronectin (~~FN~~) protein is a peptide having a specific Arg-Gly-Asp (~~RGD~~) amino acid sequence which binds to an integrin receptor on a cell side.

22. (Withdrawn/Currently Amended) The solidified preparation according to claim 21, wherein the peptide having the specific Arg-Gly-Asp ~~an RGD~~ amino acid sequence is (SEQ ID NO: 16)
~~Tyr Ala Val Thr Gly Arg Gly Asp Ser Pro Ala Ser (FIB-1).~~

23. (Withdrawn/Currently Amended) The solidified preparation according to claim 20, wherein the peptide in a region relating to cell adhesion of laminin (~~LN~~) protein is an α -chain G-domain peptide.

24. (Withdrawn/Currently Amended) The solidified preparation according to claim 23, wherein the G-domain peptide is ~~Arg-Lys-Arg-Leu-Gln-Val-Gln-Leu-Ser-Ile-Arg-Thr (AG73)~~ (SEQ ID NO: 1), ~~Leu-Gln-Gln-Arg-Arg-Ser-Val-Leu-Arg-Thr-Lys-Ile (AG73T)~~ (SEQ ID NO: 2), ~~Thr-~~

~~Leu-Gln-Leu-Gln-Glu-Gly-Arg-Leu-His-Phe-Met (AG76.8) (SEQ ID NO: 17), Thr-Leu-Gln-Leu-Gln-Glu-Gly-Arg-Leu-His-Phe-Nle (AG76.8X) (SEQ ID NO: 18), Val-Lys-Thr-Glu-Tyr-Ile-Lys-Arg-Lys-Ala-Phe-Met (AG81.2) (SEQ ID NO: 3), Val-Lys-Thr-Glu-Tyr-Ile-Lys-Arg-Lys-Ala-Phe-Nle (AG81.2X) (SEQ ID NO: 4), Lys-Asn-Arg-Leu-Thr-Ile-Glu-Leu-Glu-Val-Arg-Thr (A2G73) (SEQ ID NO: 5), Lys-Pro-Arg-Leu-Gln-Phe-Ser-Leu-Asp-Ile-Gln-Thr (A3G72) (SEQ ID NO: 6), Lys-Phe-Leu-Glu-Gln-Lys-Ala-Pro-Arg-Asp-Ser-His (A4G73) (SEQ ID NO: 19), Gly-Glu-Lys-Ser-Gln-Phe-Ser-Ile-Arg-Leu-Lys-Thr (A4G78) (SEQ ID NO: 20), Thr-Leu-Phe-Leu-Ala-His-Gly-Arg-Leu-Val-Phe-Met (A4G82) (SEQ ID NO: 7), Thr-Leu-Phe-Leu-Ala-His-Gly-Arg-Leu-Val-Phe-Nle (A4G82X) (SEQ ID NO: 8), Gly-Pro-Leu-Pro-Ser-Tyr-Leu-Gln-Phe-Val-Gly-Ile (A5G71) (SEQ ID NO: 9), Arg-Asn-Arg-Leu-His-Leu-Ser-Met-Leu-Val-Arg-Pro (A5G73) (SEQ ID NO: 10), Arg-Asn-Arg-Leu-His-Leu-Ser-Nle-Leu-Val-Arg-Pro (A5G73X) (SEQ ID NO: 11), Leu-Val-Leu-Phe-Leu-Asn-His-Gly-His-Phe-Val-Ala (A5G77) (SEQ ID NO: 12), Leu-Val-Leu-Phe-Leu-Asn-His-Gly-His (A5G77f) (SEQ ID NO: 13), Lys-Asn-Ser-Phe-Met-Ala-Leu-Tyr-Leu-Ser-Lys-Gly (hA3G75) (SEQ ID NO: 21) or Gly-Asn-Ser-Thr-Ile-Ser-Ile-Arg-Ala-Pro-Val-Tyr (hA3G83) (SEQ ID NO: 15).~~

25. (Withdrawn) The solidified preparation according to claim 20, wherein the cell adhesion peptide is a peptide comprising 3 to 20 amino acid residues.

26. (Withdrawn) A method for producing a solidified preparation wherein a functional group, which is capable of reacting to a protein or a peptide, of a hydrophobic binding-adsorptive

polymer coated on a cell culture substrate reacts to a cell adhesion protein or peptide.

27. (Withdrawn) A method for producing a solidified preparation wherein a functional group, which is capable of reacting to a protein or a peptide, of a hydrophobic binding-adsorptive polymer reacts to a cell adhesion protein or peptide, and a cell culture substrate is coated with the reactant.

28. (Withdrawn) A reactant obtained by reacting a functional group, which is capable of reacting to a protein or a peptide, of a hydrophobic binding-adsorptive polymer, to cell adhesion proteins or peptides.

29. (Withdrawn) An artificial tissue prepared by seeding a desired cell on the solidified preparation of a cell adhesion protein or peptide according to any one of claims 17 to 27, and culturing the cell.

30. (Withdrawn) The artificial tissue according to claim 29, wherein the desired cell is an epithelial cell, an endothelial cell or a mesenchymal cell.

31. (Withdrawn) The artificial tissue according to claim 30, wherein the epithelial cell is an epidermal cell, a corneal epithelial cell, an alveolar epithelial cell, a mucosal epithelial cell of digestive system, a renal glomerular epithelial cell or a hepatic parenchymal cell.

32. (Withdrawn) The artificial tissue according to claim 30, wherein the endothelial cell is a renal glomerular ciliated cell, a vascular endothelial cell, a pulmonary arterial vascular endothelial cell, a placental venous vascular endothelial cell or an aortic endothelial cell.

33. (Withdrawn/Currently Amended) The artificial tissue according to claim 30, wherein the mesenchymal cell is a muscle cell, an adipocyte, a glial cell, a Schwann cell or a neural cell (~~neuron~~).

34. (Withdrawn) The artificial tissue according to any one of claims 29 to 33, wherein the artificial tissue is an artificial epidermal tissue, an artificial corneal epithelial tissue, an artificial alveolar epithelial tissue, an artificial respiratory epithelial tissue, an artificial renal glomerular tissue, an artificial hepatic parenchymal tissue or an artificial vascular endothelial tissue, or an artificial blood vessel, an artificial lung, an artificial liver, an artificial kidney, an artificial skin or an artificial cornea.